

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014105**Date Inspected:** 24-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005410

Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component and weld designations reviewed are as follows:

SOUTH TOWER LIFT 4 – 119M & 123M, FIT-LUGS & DIAPHRAGM TO SKIN A; B; C & D

1. SSTL4 – 1C/L – 134~137; 79~90

2. SSTL4 – 1F/L – 36~59; 65~72; 21~23; 104~117; 118~123; 129~136; 78~89

Magnetic Particle Testig (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

SOUTH TOWER LIFT 4 – 119M & 123M, FIT-LUGS & DIAPHRAGM TO SKIN A; B; C & D

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

1. SSTL4 – 1C/L – 134~137; 79~90
2. SSTL4 – 1F/L – 36~59; 65~72; 21~23; 104~117; 118~123; 129~136; 78~89

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005411

Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component and weld designations reviewed are as follows:

SOUTH TOWER LIFT 5 DIAPHRAGM

1. SSD1 – TL5 – 1B/F – 13A/B – Green Tag # 11618
2. SSD1 – TL5 – 1B/F – 21A/B – Green Tag # 11619

Magnetic Particle Testig (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

SOUTH TOWER LIFT 5 DIAPHRAGM

1. SSD1 – TL5 – 1B/F – 13A/B – Green Tag # 11618
2. SSD1 – TL5 – 1B/F – 21A/B – Green Tag # 11619

Shielded Metal Arc Welding (SMAW):

Weld joint # 9 located on Skirt plate NSD1 – A803B/B. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Zhu Zhong Jie. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2114.

Weld joint # 40B located on North Tower Lift-5 at A/E Corner NSD1 – TL5– 3B/F. Welder is identified as 052930. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – Tc – U5b – 1. (See attached photo)

Weld joint # 18 located on Façade Seal Angle WD1 – SFSA3 – 104 – 2. Welder is identified as 040268. ZPMC Quality Control (QC) Inspector is identified as Zhu Zhong Jie. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112.

Weld joint # 39A located on North Tower Lift-5 at A/B Corner NSD1 – TL5– 3B/F. Welder is identified as 500363. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3211 – B – U4b.

Flux Core Arc Welding (FCAW):

Weld joint # 24 located on North Tower Lift 4 Diagonal Plate at B/C corner NSTL4 – 3B/L. Welder is identified as 070212. ZPMC Quality Control (QC) Inspector is identified as Li Peng Fei. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – P4 – F – 2.

Weld joint # 53 located on North Tower Lift 4 Diagonal Plate at C/D corner NSTL4 – 3B/L. Welder is identified

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

as 067037. ZPMC Quality Control (QC) Inspector is identified as Yuan Hui Gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – P4 – F – 2.

BAY 11

This QA Inspector observed the following work in progress:

Sub-Merged Arc Welding (SAW):

Weld joint # 2-1A located on Strut Plate ND1 – STSA4 – 6 – 143. Welder is identified as 047304. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4221 – B – U3C – S – 1.

Weld joint # 2-1B located on Strut Connection Plate WD1 – SA4 – 56 – 135M. Welder is identified as 042195. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3221 – T – U5 – S – 1.
(See attached photo)

Surface Welding by Shielded Metal Arc Welding (FCAW):

Surface welding / Weld build up being performed according to the weld repair report #T-WR3111 located on Skirt Plate # ESD1-A65A/B. Welder is identified as 040655. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 3G (3F) – Repair.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest - 15000422360, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
